# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/076,510 | 02/19/2002 | Seung June Yi | 2101-3187 | 3418 |

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| EXAMINER |
|---|
| WONG, BLANCHE |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2616 | |

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | Application No. | Applicant(s) |
| **Office Action Summary** | 10/076,510 | YI ET AL. |
| | Examiner | Art Unit | |
| | Blanche Wong | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on <u>05 June 2006</u>.

2a)☒ This action is **FINAL**.      2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) <u>32-56</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>32-56</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on <u>19 February 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All  b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1.     Applicant's arguments filed June 5, 2006 have been fully considered but they are

not persuasive.

On p. 7 of the Remark, Examiner understands that Applicant tried to differentiate

between data in Shin and occupancy of the invention.  However, after further

consideration, Examiner contends that the new claims do not provide the differentiation

necessary to subject the claims allowable.  That is, if the claim language is interpreted

broadly, data and occupancy still read similarly in Shin.

For example, data existing at some buffer, as referenced four times (Shin, col. 4,

lines 24-31), is directly related to buffer occupancy.  It would seem that a buffer

occupancy measures how full is a buffer.  It follows that buffer occupancy, given a

plurality of buffers, would be the sum of data existing in these buffers.

### *Claim Rejections - 35 USC § 102*

2.     The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

3.     **Claims 32-56** are rejected under 35 U.S.C. 102(e) as being anticipated by Shin

(U.S. Pat No. 6,640,105)

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

under 35 U.S.C. 102(e).  This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

the reference was derived from the inventor of this application and is thus not the

invention "by another," or by an appropriate showing under 37 CFR 1.131.


With regard to claim 32, Shin discloses a traffic volume measurement method for

controlling at least one radio bearer, comprising:

receiving, from an upper layer **(RRC)("MAC is provided with measurement**

**parameters ... from the RRC", col. 6, line 25; see also "[MAC] receives**

**measurement numeral parameters (THu, THI) from RRC", S10 in Fig. 6,),**

measurement information **(parameters)** including a lower and an upper value **(the**

**upper critical value THu and the lower critical value THI, col. 5, lines 24-25)** of

permissible traffic volume for a transport channel;

receiving buffer occupancy **(state of each of the transport RLC buffers)** from a

radio link control (RLC) layer for each logical channel **("Basically, the MAC is**

**provided with ... a state of each of the transport RLC buffers ... corresponding to**

**respective radio access bearers from the RLC", col. 6, lines 29-30)** related to the

transport channel **("the transport MAC buffers ... which corresponds to the traffic**

**volume transported through the CCTrCH", col. 6, lines 32-35),** the buffer occupancy

for each logical channel related to the transport channel including an amount of control

protocol data units (PDUs) **(a RLC PDU from each of the RLCs, col. 6, line 26);**

measuring traffic volume for the transport channel ("**...MAC measures ... the**

**transport MAC buffers...", col. 6, lines 32-34)** by summing the buffer occupancy for

each logical channel related to the transport channel ("**...MAC measures the sum of**

**data existing at the transport RLC buffers...", col. 6, lines 31-32)**;

comparing the measured traffic volume to the lower or upper value **(...MAC**

**compares the traffic volume measurement ... to the ... THu and ... THl", col. 6,**

**lines 35-38)**; and

reporting buffer occupancy information to the upper layer **(RRC) (see also "The**

**MAC also provides a measurement report service, reporting traffic volume values**

**... and the like to the RRC", col. 2, lines 25-28)**, if the measured traffic volume is

larger than the upper value or lower than the lower value **("... falls outside the range**

**between ... THu and ... THl, the the result of the traffic volume measurement ... is**

**provided to the RRC ...", col. 6, line 42-46)**.

With regard to claim 33, Shin further discloses a buffer occupancy information

reported to the upper layer that includes buffer occupancy information for each of the at

least one radio bearer mapped to the transport channel **("... MAC is provided with a**

**RLC PDU from each of the RLCs which transports different radio access bearers**

**...", col. 6, line 26-28)**.

With regard to claim 34, Shin further discloses each operation of the method is

performed by a MAC entity **(MAC)**.

With regard to claim 35, Shin further discloses a buffer occupancy information **(state of each of the transport RLC buffers)** that includes at least one of a buffer occupancy **(the transport RLC buffers)**, an average of buffer occupancy **(averages, col. 5, line 39)**, and a variance of buffer occupancy **(deviations, col. 5,line 40)**, for each of the at least one radio bearer **(see also "... amounts of data corresponding to respective radio access bearers ....", col. 5, lines 36-41)**.

With regard to claim 36, Shin further discloses a measurement of the traffic volume that is performed every transmission time interval (TTI) **(a given time period, col. 5, line 39)**.

With regard to claim 37, Shin further discloses a buffer occupancy for each logical channel **(each of the the transport RLC buffers) ("Basically, the MAC is provided with ... a state of each of the transport RLC buffers ... corresponding to respective radio access bearers from the RLC", col. 6, lines 29-30)** related to the transport channel **("the transport MAC buffers ... which corresponds to the traffic volume transported through the CCTrCH", col. 6, lines 32-35)** represents an occupancy of an RLC buffer of an RLC entity **(RLC)**.

With regard to claim 38, see analyses for claims 35 and 36.

With regard to claim 39, Shin further discloses an upper layer that is a RRC layer **(RRC)**.

With regard to claim 40, see analysis for claim 32. Shin further discloses reporting period **(a given time period, col. 5, line 39).**

With regard to claim 41, see analysis for claim 34.

With regard to claim 42, see analysis for claim 33.

With regard to claim 43, see analysis for claim 35.

With regard to claim 44, see analysis for claim 37.

With regard to claim 45, see analysis for claim 39.

With regard to claim 46, see analysis for claim 38.

With regard to claim 47, see analysis for claim 32. Shin further discloses an event-triggered measurement mode **(event trigger mode, col. 5, line 16)** or a periodic measurement mode **(periodic mode, col. 5, line 11)**; and performing reconfiguration of the at least one radio bearer based on the buffer occupancy information **("Then, the RRC undertakes a procedure for controlling the radio access bearers based on the traffic volume measurement ...", col. 6, lines 47-49).**

With regard to claim 48, see analysis for claim 33.

With regard to claim 49, Shin further discloses when the measurement mode is the event-trigger measurement mode **(event trigger mode, col. 5, line 16)**, the measurement information further including an upper limit and a lower limit **(THu and THl, col. 5, lines 20-21)**.

With regard to claim 50, see analysis for claim 32.

With regard to claim 51, see analysis for claim 34.

With regard to claim 52, Shin further discloses when the measure mode is the periodic measurement mode **(periodic mode, col. 5, line 11)**, the measurement information further includes a reporting period **(periodically, col. 5, line 15) (it is inherent that there is a reporting period and it is cyclical)**.

With regard to claim 53, Shin further discloses checking whether a reporting period is elapsed in the MAC entity **(it is inherent that a reporting period has to elapse in the MAC entity during which the MAC reports to the RRC)**.

With regard to claim 54, see analysis for claim 39.

With regard to claim 55, see analysis for claim 35.

With regard to claim 56, see analysis for claim 32.


### *Conclusion*

4.    **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


5.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BW
August 1, 2006

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